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കേരള സർക്കാർ
Government of Kerala
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കേരള ഗസറ്റ് KERALA GAZETTE

ആധികാരികമായി പ്രസിദ്ധപ്പെടുത്തുന്നത്
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PART IV Private Advertisements and Miscellaneous Notifications

Ayurveda Medical Education Department

[No. 21/2019-20]

ദർഘാസ് പരസ്യം

[നമ്പർ 21/2019-20]

നമ്പർ എസ്-7435/2019/എ.വി.സി. 2019 ഡിസംബർ 10.

തിരുവനന്തപുരം ഗവ. ആയുർവേദ കോളേജ് ദ്രവ്യഗുണ വിജ്ഞാന വകുപ്പിലെ റിസർച്ച് പ്രോജക്ടിലേയ്ക്ക് ഒരു വർഷ കാലയളവിൽ റണ്ണിംഗ് കോൺട്രാക്ട് വ്യവസ്ഥയിൽ ഗട്ട് മൈക്രോബയോം അനാലിസിസ് നടത്തുന്നതിന് അംഗീകൃത ഗവേഷണ സ്ഥാപനങ്ങൾ/ലാബുകൾ എന്നിവയിൽ നിന്നും മുദ്ര വച്ച ദർഘാസുകൾ ക്ഷണിച്ചുകൊള്ളുന്നു. ടി അനാലിസിസ് സംബന്ധിച്ച വിശദവിവരങ്ങൾ ഇതോടൊപ്പം ഉള്ളടക്കം ചെയ്യുന്നു

അടങ്കൽ തുക—₹ 4,00,000.

ഓരോ ദർഘാസുകളും ഗവ. ആയുർവേദ കോളേജ് പ്രിൻസിപ്പാളിന്റെ മേൽ വിലാസത്തിൽ പ്രത്യേകം കവറിലാക്കി സീൽ ചെയ്ത് കവറിന് പുറത്ത് “ദ്രവ്യഗുണ വിജ്ഞാന വകുപ്പിലെ റിസർച്ച് പ്രോജക്ടിലേയ്ക്ക് ഒരു വർഷ കാലയളവിൽ റണ്ണിംഗ് കോൺട്രാക്ട് വ്യവസ്ഥയിൽ ഗട്ട് മൈക്രോബയോം അനാലിസിസ് നടത്തുന്നതിനുള്ള ടെൻഡർ” എന്ന് രേഖപ്പെടുത്തി 31-12-2019-ന് ഉച്ചയ്ക്കുശേഷം 3 മണി വരെ സമർപ്പിക്കാവുന്നതാണ് 31-12-2019 ഉച്ചയ്ക്കുശേഷം 3.30 മണിയ്ക്ക് ദർഘാസുകൾ നിയമാനുസരണം തുറക്കുന്നതായിരിക്കും. യാതൊരു കാരണവശാലും ദർഘാസ് ഫാറങ്ങൾ കൈമാറ്റം ചെയ്യാൻ പാടില്ലാത്തതാകുന്നു. ദർഘാസ് ഫാറങ്ങളുടെ വിൽപ്പന 30-12-2019-ന് ഉച്ചയ്ക്ക് 3 മണിയ്ക്ക് അവസാനിക്കുന്നതാണ്. ഫാറങ്ങൾ തപാൽ മാർഗ്ഗം ആവശ്യമുള്ളവർ ദർഘാസ് ഫാറത്തിന്റെ വിലയേക്കാൾ ₹ 50 കൂടുതൽ മണിയോർഡർ ആയി അയയ്ക്കേണ്ടതാകുന്നു. ദർഘാസിൽ രേഖപ്പെടുത്തിയിരിക്കുന്ന വില നിരക്കുകൾ ദർഘാസ് അംഗീകരിച്ച് നൽകുന്ന തീയതി മുതൽ ഒരു വർഷം വരെയുള്ള കാലയളവിനുള്ളിൽ മാറ്റം വരുത്താൻ പാടില്ലാത്തതാകുന്നു. ഒരു ദർഘാസിന്റെ വില ₹ 1400-ആണ്. [ടെൻഡർ ഫോറം വാങ്ങുന്നതിനായി ₹ 168-ന്റെ (SGST 84 & CGST 84) ഒറിജിനൽ ജി. എസ്. ടി. ചെലാൻ ഹാജരാക്കേണ്ടതാണ്] ഡ്യൂപ്ലിക്കേറ്റ് ഫാറത്തിന്റെ വില ₹ 700.

പുരിപ്പിച്ച ദർഘാസ് ഫാറത്തിനോടൊപ്പം രേഖപ്പെടുത്തിയ തുകയുടെ 1% തുക (ഏറ്റവും കുറഞ്ഞ തുക ₹ 1,500) നിരതദ്രവ്യമായി തിരുവനന്തപുരം ആയുർവേദ കോളേജ് പ്രിൻസിപ്പാളിന്റെ പേരിൽ എടുത്ത ഡിമാന്റ് ഡ്രാഫ്റ്റും ₹ 200-ന്റെ കേരള സംസ്ഥാന മുദ്രപത്രത്തിൽ രേഖപ്പെടുത്തിയ പ്രിലിമിനറി എഗ്രിമെന്റും ഹാജരാക്കേണ്ടതാണ്. ഏതൊരു ടെൻഡറും കാരണം കാണിക്കാതെ നിരസിക്കാനോ മാറ്റിവയ്ക്കാനോ ഉള്ള അധികാരം തിരുവനന്തപുരം സർക്കാർ ആയുർവേദ കോളേജ് പ്രിൻസിപ്പാളിന് നിക്ഷിപ്തമായിരിക്കും. ഏതെങ്കിലും കാരണത്താൽ 31-12-2019-ന് സർക്കാർ അവധി പ്രഖ്യാപിക്കുകയാണെങ്കിൽ അടുത്ത പ്രവർത്തി ദിവസം അതേ സമയം ടെണ്ടർ തുറക്കുന്നതായിരിക്കും. കൂടുതൽ വിവരങ്ങൾ കോളേജ് ഓഫീസിൽനിന്നും അറിയാവുന്നതാണ്.

No. S1-7435/2019/AVC.

10th December 2019.

Sealed competitive tenders are invited for the recognized Research Centre/labs for conducting the Gut Microbiome Analysis for the Research Project under Dravyagunavijana Department of Govt. Ayurveda College, Thiruvananthapuram as per running contract for one year as per the detailed specification attached.

P.A.C.—₹ 4,00,000.

The envelopes containing the tenders should bear the superscription “conducting the Gut Microbiome Analysis for the Research Project under Dravyagunavijana Department of Government Ayurveda College, Thiruvananthapuram”, as per running contract for one year addressed to the Principal, Govt. Ayurveda College, Thiruvananthapuram. The last date of the receipt of tenders will be at 3 p. m. on 31-12-2019. The late tenders will not be accepted. The tenderers will be opened at 3.30 p. m. on 31-12-2019 in the presence of the tenderers or their authorised representatives, who may be present at that time.

Intending tenderers may on application to the Principal, Govt. Ayurveda College, Thiruvananthapuram to obtain requisite tender forms on which tenders should be submitted. Application for the tender forms should be accompanied by cash remittance of ₹ 1,400 [original GST chalan for ₹ 168 (SGST 84 and CGST 84) should be submitted for obtaining tender form] which is the price fixed for a form and which is not refundable under any circumstances. Tender forms are not transferable. Sale of tender forms will be closed at 3 p. m. on 30-12-2019. Cheque, postage stamps etc. will not be accepted towards the cost of forms. Those who wish to purchase tender forms by post shall send an additional amount of ₹ 50 by money order to cover postal charges. Duplicate tender forms, if required will be issued at ₹ 700.

Intending tenderers should submit an amount of 1% of the amount quoted as Earnest Money Deposit (Minimum ₹ 1,500) by Demand Draft in favour of the Principal, Government Ayurveda College, Thiruvananthapuram together with an agreement in Kerala Stamp Paper worth ₹ 200. The rate quoted shall remain firm for acceptance till one year from the date of acceptance. The Principal, Govt. Ayurveda College, Thiruvananthapuram will have powers to postpone/cancel the tender. If Government declares 31-12-2019 as a public holiday, the tender will be opened at the same time on next working day. Further details can be had from the office during office time.

**Specification for the task requirement for 16S
(V3-V4) amplicon sequencing with Illumina
MiSeq System**

Amplicon Sequencing with Illumina MiSeq

Project background and task Requirement for 16S (V3-V4) amplicon sequencing with Illumina MiSeq system.

Technical strategy Library preparation V3-V4 amplicons are generated from 16S product using a nested PCR strategy.

Library will be prepared using NEBNext Ultra DNA Library preparation kit.

In brief, the amplicons are subjected to a sequence of enzymatic steps for repairing the ends and tailing with dA-tail followed by ligation of adapter sequences. These adapter ligated fragments are then cleaned up using SPRI beads. Next, the clean fragments are indexed during limited cycle PCR to generate final libraries for paired-end sequencing.

The resulting libraries are quantified before loading on the cBot for cluster generation and sequencing on Illumina MiSeq system to generate 2×250 bp sequence reads. Figure 1. 16S V3-V4 amplicon library preparation workflow.

Sequencing Prepared libraries will be sequenced with Illumina MiSeq to generate 0.5M reads, 2×250 bp for each sample.

Upto 80% of the sequenced bases will be of Q30 value. Sequenced data will be processed to generate FASTQ files and uploaded on the FTP server for download.

This involves amplicon QC, sequencing-ready library preparation, cluster generation, sample run on Illumina MiSeq sequencer, generating quality report of raw data and secondary data analysis. Parameter Description Project nature V3-V4 sequencing Sample type DNA Samples No. of samples 40 Sequencer Illumina MiSeq Read length 2x250 bp Data yield/sample 0.5M reads/sample.

To analyze the received samples with Qubit fluorometer (ThermoFisher Scientific) and 2200 TapeStation (Agilent Technologies).

In case the samples fail quality check, the customer would be requested to provide fresh samples, and all samples from the project would be re-queued for sequencing in the next available slot. Input requirements 1.100 ng to 500 ng of DNA amplicons in nuclease free H₂O or 10 mM Tris, pH8.0, quantified with Qubit. Private and Confidential Page 5 Bioinformatic Analysis 16s.

Metagenomics study involves sequencing of genomic material extracted directly from any sample without culturing in laboratory medium. For 16s metagenomics, the most popular approach is to sequence any of the hyper variable region of 16s ribosome (preferably V3, V4 & V3-V4 amplicons). Microbial population is identified by a comparison across reference genome database. The bioinformatics analysis is done using the following in-house pipeline:

Bioinformatics Analysis -The steps are as follows:
Quality trimming: A quality control step ensures all the poor quality reads (below Q30) are discarded or trimmed and passed to next step. 16s rDNA detection: The targeted amplicons (V3, V4 or V3-V4) are filtered out from other unwanted sequences, by detecting the presence of a known conserved region (CR) for the specific amplicon region.

Dereplication & Chimera removal: Dereplication or duplicates are removed from the raw files to keep only one sequence per group, which reduces a lot of subsequent computational time.

Chimeric sequences generated in PCR are also removed using usearch uchime algorithm Private and Confidential Page 6 OTU picking: Sequences having a similarity of 97% are grouped together using denovo method under a single operational taxonomic unit (OTU). Any OTU that has a count of 1 that is only one sequence is present once in a single sample are filtered out as these may have been created as experimental artifact rather than being some novel organism.

Taxonomy Classification: One representative sequence from each OTU is picked up and they are classified using RDP classifier against green gene database at 97% similarity. The taxonomy classification is done at phylum, class, order, family and genus level, α and β diversity: A very popular approach to find out the differences between multiple samples, is to calculate different diversity metrics across all the samples. When the samples are from similar habitat, α -diversity metrics like Shannon indices (diversity of a sample) and chaol indices (richness of a sample) are calculated. For samples obtained from different types of habitat, β diversity is calculated as weighted (quantitative) and unweighted (qualitative) unifracs (distance metric calculated by phylogenetic distance of microbial composition).

Standard deliverables: The standard deliverables will include:

1. Quality control data: A table containing quality of raw files (total reads, average read length, size of data, base quality, GC % etc.), bar charts for raw read distribution, data size distribution, base quality distribution and final processed reads distribution.

2. OTU table: A raw OTU table for each of the identified taxonomy (at phylum, class, order, family and genus level) for each samples.

3. Taxonomic classification: Distribution of major taxa (at both phyla & genera level) across all the samples as bar charts and heatmaps.

4. Group-wise differentiation (optional): For studies aiming to understand differences among different groups of samples, group-wise distribution of major phyla & genera as bar charts and heatmaps, also boxplots for different taxa to find out significantly different ones.

5. PCA plots: PCA plot for all the major genera to find out the major sources of variation across all the samples. PCA plot for all the samples based on taxonomic distribution to find out any group-wise trend (where sample groupings are available).

6. Alpha-diversity: Alpha rarefaction plots for both shanon and chao1 metrics across all the samples (or groups), alpha diversity boxplots for both shanon and chao1 metrics.

7. Beta-diversity (optional): For samples coming from different type of habitats, PCOA plots for both weighted and unweighted unifracc.

Office of the Principal,

Govt. Ayurveda College Hospital,

Thiruvananthapuram.

(Sd.)

Principal.

COCHIN PORT TRUST Willinagdon Island, Cochin-9

NOTIFICATION

No. A1/Arrest & Sale of Vessels/2016-S. 9th October 2019.

In exercise of the powers conferred by section 123 of the Major Port Trusts Act, 1963 (38 of 1963), the Board of Trustees of the Cochin Port Trust hereby makes the following regulations, namely:—

Gaz. No. 51/2019/DTP (Part IV).

1. (1) Short title and commencement.—These regulations may be called the Cochin Port Trust (Distraint or Arrest and Sale of Vessels) Regulations, 2019.

(2) They shall come into force on the date of publication of the approval thereto by the Central Government in the Official Gazette.

2. Application.—These regulations shall apply to all vessels in respect of which any rates or penalties or both are payable under the Major Port Trusts Act, 1963 or under any regulations or orders made there under, but shall not apply to vessels belonging to, or in the service of, the Central Government or a State Government or to any vessel of war belonging to any Foreign State.

3. Definitions.—In these regulations, unless the context otherwise requires,—

(i) “Act” means the Major Port Trusts Act, 1963 (38 of 1963);

(ii) “Deputy Conservator” means the Officer in charge of the Marine Department of the Cochin Port Trust and includes his immediate Deputy, the Harbour Master and any other officer acting under the authority of the Deputy Conservator;

(iii) “Form” means the form annexed to these regulations;

(iv) “Port” means the Cochin Port;

(v) words and expressions used in these regulations but not defined and defined in the Act shall have the meanings respectively assigned to them in the Act.

4. Distraint or arrest of vessels.—(1) Where any vessel in respect of which rate or penalties have not been paid is lying at the Port, a demand in ‘Form-I’ shall be made by the Financial Advisor and Chief Accounts Officer upon the Master of the defaulting vessel requiring the said Master to pay all the rates or penalties within a period of seven days from the date of issue of the said demand.

(2) The demand under sub-rule (1) shall accompany the copy of the bills containing the full particulars of Rates or penalties which were raised against the owner or agent of the concerned vessel and payment of which still remains due to the Board.